Bond Terminology

- Foreign Bonds: Bonds sold in foreign markets denominated in that country's currency (to local investors in that place) … Ashok Leyland FCCB's and other FCCB's are examples
- Bearer Bonds: The bond holder must present/send the certificate to claim the payments (interest and principal)
- Bond Covenants: Clauses to protect the bondholders' interests

Managing Risk (?)

Ram Kumar Kakani

Insurance

- Most businesses face possibility of a hazard that can bankrupt
- Neither financial nor business risk … guess?
- However, the cost and risk of a loss can be shared by others (or even transferred)
- Consider, Reliance’s case
- If experts report that a X in 100000 chance exists that Reliance could be destroyed in a war over the course of the next year
- How can the cost of this hazard be shared?
- An Insurance Policy is a contract that bounds an insurer to indemnify a client against a specified loss in exchange of a set payment, or *premium*, in advance.
- Existence of insurance companies

Insurance

- Fire in a House: Loss Rs.1 Lakh (probability: 10%) OR Zero
- Expected Loss: Rs.10000. The risk of this payoff is its S.D.
- Two houses: Probability (Loss) 0.01, 0.18, 0.81
- S.D. of expected loss for each house owner will decrease as n increases
- Insurance does not reduce the amount of losses, the probability of occurrence, nor the uncertainty of an individual as to whether or not the event will occur
- If group wants 95% confidence in its claims paying ability (i.e., actual losses are within two standard deviations of the expected loss)
- Losses expected + 2*(SD of losses)

Premiums for a Mutual Insurance Company as a Function of N Policy Holders

N	95% Confidence	99.9999% Confidence
1	70000	100000
10	28974	55062
100	16000	24250
1000	11897	14506
10000	10600	11425
100000	10190	10451
1000000	10060	10143

Insurance

- A large number of companies with similar risk can each contribute into a fund that is set aside for sharing the risk as a group
- By pooling funds to take care of this contingency, firms can withstand losses
- What would the cost to each group member be for this protection?
- The cost to each member would be the expected value of loss (zero-NPV deal)
- *plus* administrative/operating expenses, adverse selection, moral hazard, capital, and investment performance

Insurance

- Most insurance risks are jump risks
- The loss of Reliance by a war may be X in 100000. The risk, however, is larger for an insurance company since all the firms in the same area may be insured. The result is a much larger risk for the insurer.
- Answer: Could be … Catastrophe Bonds (Reinsurance)
- These allow insurers to transfer their risk to bond holders by selling bonds whose cash flow payments depend on the level of insurance losses NOT occurring
- So, there is also a way to spread their risks (coinsurance or reinsurance for insurance firms)

Hedging

- Firms have risk: Business Risk, Financial Risk
- Goal is to eliminate them
- How?
- Hedging & Forward/ Futures contracts
- Hedging involves taking one risk to offset another risk
- Example – Levers (Tea), Hindalco (Aluminium), Arvind Mills (Cotton), Ahmed Oil Mills (Refined Oil)
- Forecasted income & sales volume is set by using a fixed selling price
- Changes in cost can impact these forecasts

Hedging - Commodity Futures

- If you are HLL's tea procurement manager and he likes today's 'unblended tea' prices
- To fix HLL's 'unblended tea' costs, he would ideally like to purchase all the raw tea requirement today. But, he cannot.
- He can, however, sign a contract to purchase tea at various points in the future for a price negotiated today
- This contract is called a 'Forward Contract'
- Technique is called 'Hedging'

Hedging

- Spot Contract – is a contract for an immediate sale and delivery of an asset
- Forward Contract – is a contract between two parties for the delivery of an asset at a negotiated price on a set date in the future
- Futures Contract – is a 'Forward Contract' *plus* there is an 'intermediary' that creates a standardized contract. Thus, the two parties do not have to negotiate the terms of the contract
- So, think of Hindalco making a deal in London Metal Exchange. LME guarantees all trades and provides a secondary market.

Types of Futures

- Commodity Futures – Crude Oil (Dubai), for most farm products (Chicago), Palm Oil (Malaysia), Soya (Indore), Castor Oil (Mumbai), Cotton (Ahmedabad), for most metals (London) …
- Coming soon … Rice, Wheat, Sugar, etc.
- Financial Futures – Treasury Bills (on Interest Rate), Foreign Currency (on Exchange Rate), Common Equity Shares (of Blue Chips),
- Index Futures – NASDAQ Futures, S & P 500, Value Line Index, Nifty Futures, Sensex Futures,
- Coming soon … ??

Some Real Data …

Instrument Expiry Date	Nifty Futures 30-05-02	Nifty Futures 27-06-02
Premium [Open, High, Low]	1101, 1103, 1097	1105, 1111, 1100
Traded Qty	458600	24200
No. of Contracts	2293	121
Notional Value (Rs. Lakhs)	5046.23	266.97
Open Interest	766200	72600

Actual: previous 1084.5, open 1084.8, high 1101.1, low 1084.8, close 1093.3

Source: Business Standard Newspaper dated 3 May 2002

Some Real Data …

Instrument Expiry Date	Satyam Futures 30-05-02	Satyam Futures 27-06-02
Premium [Open, High, Low]	266.9, 268.4, 264.5	267.1, 270.5, 266.8
Traded Qty	3607200	39600
No. of Contracts	3006	33
Notional Value (Rs. Lakhs)	9617.28	106.46
Open Interest	3786000	48000

Actual Satyam Comp Share Prices: 264.00, 266.50, 262.15, 263.20

Source: Business Standard Newspaper, 3 May 2002

Futures Contract Concepts

- Not an actual sale
- Always a winner & a loser
- Futures are settled ‘every day’ (marked to market)
- Hedge – You use it to eliminate risk by locking in prices
- Speculation – You use it for gambling
- Tip: In Futures market, small change in price can cause a big loss
- On the supplier side who can hedge in the futures market?

Futures Contract Concepts

- As in options, same jargons are used (long and short)
- Margin – post a partial amount
- The amount (percentage) of a Futures contract value that must be on deposit with a broker
- In June, farmer Zalmon expects to harvest 10000 bags of groundnut during the month of August. In June, the September groundnut futures are selling for $2.94 per bag (1 bag = 10 kgs). Zalmon wants to lock in this price.
- Show the transactions if the September spot price drops to $2.80

Swaps

- Official Birth '1981'
- An agreement between two firms
- In which each firm agrees to exchange
- the Interest Rate Characteristics
- of two different financial instruments of identical principal
- Rarely done direct, banks are middlemen, bank profit is part of the swap 'gain'
- Factors – Spread inefficiencies, same notation principal, only interest exchanged